

Notice of Allowability

Application No.

10/524,628

Examiner

Ling-Siu Choi

Applicant(s)

YAMANAKA, TAKUYA

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/13/2006.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. This Office Action is in response to the Amendment filed March 13, 2006. Claims 1-9 are now pending, wherein claim 1 is an independent claim.

Allowable Subject Matter

2. Claims 1-9 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest references: Fujiwara et al. (US 4,978,409) and Seiji et al. (JP 2002-080639).

A hydrogenated nitrile rubber composition comprising	
hydrogenated nitrile rubber (100 parts by weight)	bound acrylonitrile content ≥ 30 wt%
	Mooney viscosity $[ML_{1+4} (100^{\circ}C)] = 50-70$
	iodine number (median value) ≤ 28
carbon fibers (65-200 parts by weight)	

(summary of claim 1)

Fujiwara et al. disclose a hydrogenated nitrile rubber composition comprising (A) treating fibers with an activating agent, (B) dipping the fibers into a resorcinol/formalin/latex solution, (C) treating the fibers with an adhesive composition,

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and (D) placing the fibers in close contact with a hydrogenated nitrile rubber, and (E) vulcanizing the rubber together with the fibers, wherein the fibers are carbon fibers (claims 1 and 7). Attention is drawn to Example 1, wherein the composition comprises 10% of hydrogenated nitrile rubber (Zetpol 2020) and further comprises 5% of carbon black. In view of the Exhibit B filed March 13, 2006, the hydrogenated nitrile rubber (Zetpol 2020) has bound acrylonitrile content of 36.2 wt%; **Mooney viscosity [ML₁₊₄ (100°C)] of 78**; and iodine number (median value) of 28. Thus, Fujiwara et al. do not teach or fairly suggest a hydrogenated nitrile rubber composition comprising (A) a hydrogenated nitrile rubber comprising bound acrylonitrile content ≥ 30 wt%; **Mooney viscosity [ML₁₊₄ (100°C)] (median value) = 50-70**; and iodine number (median value) ≤ 28 and (B) carbon fibers.

Seiji et al. disclose a hydrogenated nitrile rubber composition for molding material for a high pressure sealant, comprising about 30-100 parts by weight carbon black, about 10-60 parts by weight of graphite, and about 5-60 parts by weight of carbon fiber (claim 3). Attention is drawn to the paragraph [0028], wherein the hydrogenated nitrile rubber has 44.2 % of bound acrylonitrile; **iodine number of 24; and Mooney viscosity of 78**. Attention is also directed to the paragraph [0027], wherein the hydrogenated nitrile rubber has 36.2 % of bound acrylonitrile; **iodine number of 56; and Mooney viscosity of 57.5**. Thus, Seiji et al. do not teach or fairly suggest a hydrogenated nitrile rubber composition comprising (A) a hydrogenated nitrile rubber comprising bound acrylonitrile content ≥ 30 wt%; **iodine number (median value) ≤ 28 ; Mooney viscosity = 50-70**; and (B) carbon fibers.

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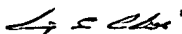
In light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



LING-SUI CHOI
PRIMARY EXAMINER

March 25, 2006